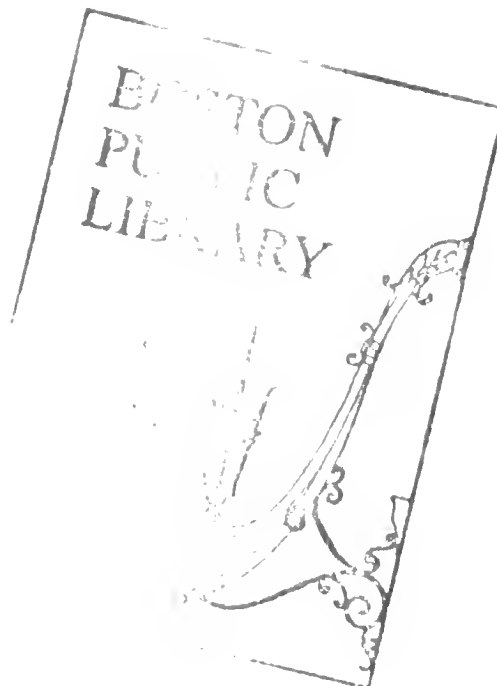



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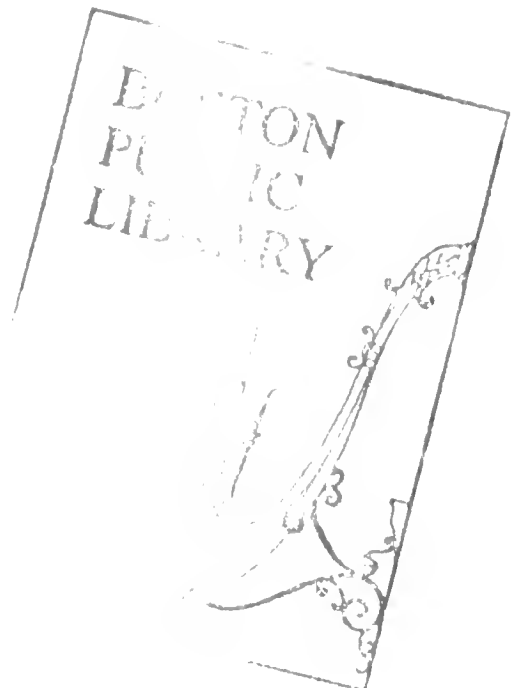
EAST BOSTON GENERAL PLAN PHASE I INVENTORY





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EAST BOSTON GENERAL PLAN - PHASE ONE

INVENTORY

Boston Redevelopment Authority
Planning Department

December, 1972

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EAST BOSTON GENERAL PLAN - FIRST PHASE - INVENTORY

I. Introduction

In June of 1972, the District Planning Program of the Boston Redevelopment Authority began an intensive planning effort to prepare a General Plan for the East Boston area. This effort coincides with City-wide planning activities which are expected to produce a Plan for the City of Boston by the end of 1973.

The District Planning staff involved in the East Boston Planning activities prepared a work program which was reviewed by BRA staff and by the East Boston Recreation, Master Planning and Land Use Advisory Council, made up of community residents serving as the local advisory council to the City of Boston.

The planning is to be done in four phases:

- I. Inventory
- II. Analysis
- III. Synthesis and Concept Development
- IV. Implementation Recommendations

The work completed in each phase will be reviewed at community meetings. The planning efforts will result in a draft General Plan for East Boston which will be available for review at the end of the year. This report contains the first phase of the General Plan -- a draft inventory report.

A. Methodology

The inventory report was prepared from data collected from published sources such as previous BRA reports on East Boston, information from other City departments, and the U.S. Census Bureau.

No attempt has been made to analyze the data contained in this report. Efforts are now underway to do this. The inventory is meant to be a compilation of data and sources and a base for future analysis and plan development.

II. Statistical Data

A. Historical Information - East Boston

From the 1600's to 1833, East Boston, then Noddle's Island, bore little relationship to the City of Boston across the harbor. Privately owned by Samuel Maverick, the island was used to supply ships with fresh meat from the livestock which grazed freely over the land. In 1883, General William H. Sumner organized the East Boston Co. as an instrument for the development of the island, and changed the name of the island to East Boston. Sumner's chief concern for making the island a profitable business venture was to connect it to the City of Boston by road, by ferry and construct wharves. By 1834, the East Boston Company had realized the first two of these objectives, which made it possible to expand commercial and residential development in a consistent manner.

In 1834, a Sugar Refinery was built on the corner of Sumner and Lewis Streets and the East Boston Timber Company was formed "to aide in the grand objective of establishing a ship-building interest at the island." In 1845, Donald McKay's shipyard moved from Newburyport to East Boston, stimulating other shipbuilders to establish themselves on the East Boston waterfront. Between 1845 and 1860, shipbuilding, from fishing yachts to ocean steamers, was more established in East Boston than anywhere else in the United States.

Concurrent with the growth of the shipping industry was the development of transportation facilities and the manufacturing of earthenware, firebrick, linseed oil, cast and rolled iron, baking soda, pottery, and engines. From the burst of population between 1845 and 1860, East

Boston emerged as an industrialized, urban area; wharves and warehouses were erected, steamboats were launched, streets were laid out and buildings raised.

As a balance to the industrial growth, General Sumner sought to attract influential businessmen to use the island as a summer resort. To further this end, a large and elegant hotel, the Maverick House, was erected in 1833; and Camp Hill (Belmont) and Eagle Hill were designated as a section for the construction of pleasant summer residences. The Maverick House burned down in 1857 and was replaced by the Sturtevant House on the same site. In addition, thirteen 3 1/2-story brick dwelling houses and a large stone building 2 1/2 stories high, called "Winthrop Block", were erected. The stone building had a market on the ground floor and the upper stories designed for offices. The ground floor remains intact today on the west side of Maverick Square between Winthrop Street and Maverick Street. Also on the west side of the square, at the corner of Sumner Street, is the former Maverick Church, built in 1844. Across Sumner Street at the corner of Lewis Street is the "Woodbury" building, built in 1841 for the East Boston Wharf Company. The building was designed as a row house with residences above and shops below.

From 1835 through the 1860's, the Maverick Square area became the focus of community life. From Sumner Street to the harbor were wharves, warehouses, company offices, and housing for workers. Belmont Square (Brophy Park - Jeffries Point Area) and Eagle Hill were reserved for more affluent residences of businessmen, leaders in the East Boston industries, and captains of merchant ships. In general, the portion of land south of Porter Street and east of Chelsea Street took on the appearance of a prosperous suburb, while the portion west of Chelsea Street and south of Porter Street became an area for the workers in the waterfront industries.

During the 1860's, the character of East Boston began to change, influenced by the development of the waterfront for transatlantic vessels, the growth of railroad yards, and the decline of shipbuilding. The shipbuilders and those who worked in related industries began to move away, paving the way for the great influx of immigrants, primarily Irish. The availability of work at the island's other industries, coupled with a North Ferry service that enhanced the mobility of immigrants from the North End of Boston, resulted in the development of the low-lying land on the edge of Webster Street Hill and the area beyond Porter Street.

By 1885 the new industrial composition of East Boston--factories for garment and shoe making, and cotton weaving industries--provided jobs for the large wave of Italian and Jewish immigrants who came to the United States during the 1880's. Job opportunities, adequate and convenient housing, highly valued by the immigrant, became trademarks of East Boston. The construction of the East Boston Subway Tunnel in 1905 aided in another increase of the population of the island.

Today, though East Boston's industries and population are decreasing much remains to remind us of the island's past history. The view of Boston from the waterfront is unsurpassed; brick townhouses around the Maverick Square area and lining Belmont Square (around Brophy Park) stand, often unaltered, presenting an image of stately nineteenth century, residential town architecture; and the various structures built throughout the island by the distinctive groups of immigrant workers remind the onlooker of East Boston's historical heritage.

B. Population and Income

1. Population

The population of East Boston, now 38,900, was declined over the past 10 years. The area has experienced a net loss of approximately 5,000 persons. This represents an 11% decrease.

From Census data it is evident that East Boston has lost more people between the ages of 25-44 than the average Boston neighborhood in the last 10 years. The percentage of those persons over age 65 is increasing, while the percentage of those under age 25 has stabilized (with the exception of persons under five years of age). These figures, as well as interviews with community residents, indicate the exodus of families with young children from East Boston.

Despite the decline in the number of families, East Boston remains primarily a family residential area. For example, 91% of the households in the area are primary households. (The Census Bureau defines a primary household as that segment of a population which lives in a family unit with either a paternal head, or some other relative as head of the household.)

2. Income

In 1960, the median family income in East Boston was \$5,323, which is slightly lower than the median for the city as a whole (\$5,747). 60.5% of East Boston's families earned less than \$6,000, a higher proportion than the 53.6% of such families in the entire City of Boston.

In 1970, the median family income in East Boston was \$8,620 which is lower than the City of Boston's median family income (\$9,133).

Changes in Population;
1960-1970

<u>Population</u>	<u>East Boston</u>		<u>City</u>	
1960	43,800	-14% (from 1950)	697,000	(-13%)
1970	38,900	-11%	641,000	(-8%)
<u>Neighborhoods</u>				
		<u>1960</u>	<u>1970</u>	<u>Percent change</u>
Day Square		4052	5110	+22%
Eagle Hill		14549	12752	-14%
Jeffries Point		8623	6810	-25%
Maverick		4465	3445	-23%
Paris		4972	4058	-20%
Orient Heights		7149	6724	-7%
				-11%

Table 2 - Age Distribution (1970)

	<u>East Boston</u>	<u>City</u>
Under 5	3182 (8.25%)	7.8%
5-19	9977 (25.6%)	25.6%
20-24	3283 (8.4%)	12.0%
25-44	8663 (22.3%)	31.9%
45-64	9212 (23.7%)	20.0%
65 +	4550 (11.7%)	12.7%

C. Employment and occupational characteristics

<u>East Boston</u>	<u>1960 (%)</u>	<u>City (%)</u>
Operatives	34	21
Clerical and Sales	23	29
Private households, service and labor	17	20
Craftsman, foreman	16	12
Managers, Officials, Professional, Technical, Proprietors	10	18
Unemployment	7	5

1970

	<u>East Boston (%)</u>	<u>City (%)</u>
Operatives	28	14
Clerical and Sales	29	33
Private Households, service & labor	15	21
Craftsmen, foremen	15	10
Managers, Officials, Professional, Technical, Proprietors	13	23
Unemployment	5	4

D. Education (persons 25 years old and over)

	median school years completed	
	<u>1960</u>	<u>1970</u>
Orient Heights	10.9	11.7
Day Square	10.5	11.5
E. Eagle Hill	9.6	10.6
W. Eagle Hill	9.3	10.7
Paris Street	8.7	9.0
Maverick Square	8.7	9.4
Jeffries Point	8.6	9.0
Jeffries Street	8.9	10.0
<u>City of Boston</u>	11.2	12.1

E. Public Assistance

Families receiving public assistance or public welfare

<u>Neighborhood</u>	<u>Number</u>	<u>%</u>
Orient Heights	189	11%
Day Square	105	8%
East Eagle Hill	157	14%
West Eagle Hill	313	14%
Paris Street	112	10%
Maverick Square	227	28%
Jeffries Point	141	14%
Jeffries Street	154	19%
East Boston	1398	14%
City of Boston		17%

F. Housing

1. Dwelling Units

In 1960, East Boston had 13,989 dwelling units. In 1970, the number of dwelling units had decreased to 13,727, a decrease of about 2%. The number of persons per unit has decreased from 3.1 to 2.8. This indicates that East Boston is following the national trends toward smaller households, since population is decreasing faster than the decrease in the number of dwelling units. East Boston, however, has a higher persons per unit ratio than the City as a whole.

2. Unit types

Two to four family units predominate in East Boston.

3. Degree of Overcrowdedness in Housing

Approximately 8% or 1094 of the occupied housing units in East Boston have more than 1.01 persons per room. This figure is commonly used to indicate degree of overcrowdedness. In 1960, East Boston housing was overcrowded at a rate of 10%.

Trends in Family Size

	<u>East Boston</u>		<u>City</u>	
	<u>1960</u>	<u>1970</u>	<u>1960</u>	<u>1970</u>
1 & 2 persons	34%	48%	48%	52%
5 or more persons	19%	17%	17%	15%

Size of Units (Bedrooms)

	<u>East Boston</u>	<u>City</u>
1	13%	13%
2	30	26%
3	32	34%
4	24	26%

4. Density

East Boston is one of the more densely populated areas in the City. The map below indicates the densities which exist in East Boston neighborhoods. (1970 Census data - BRA Research Dept.)

5. Owner-Occupied and Renter-Occupied Units

Approximately 31% of the housing units in East Boston are owner-occupied, a percentage which is higher than the percentage for the City of Boston (27%). 69% of East Boston's units are thus rental units. The number of owner-occupied units in East Boston has increased since 1960.

6. Rent - Income Ratio

In East Boston approximately one-third of the households are paying over 25% of their income for rent. This 25% figure is somewhat arbitrary but if exceeded it is an indication that families are paying more than what most housing experts feel is appropriate, based on other expenses which people have. In fact, many studies have indicated that most lower income families cannot afford to devote 25% of their income for housing.

East Boston has 33% of its households paying 25% or more for rent.

7. Value of Owner - Occupied Units

Median values are highest in Orient Heights (\$17100) and lowest in the Paris Street area (below \$10,000).

<u>1960</u>	<u>less than \$9999</u>	<u>\$10,000-14,999</u>	<u>\$15,000-19,999</u>	<u>\$20,000 or more</u>
East Boston	65%	19%	9%	7%
City	26%	37%	26%	11%
<hr/>				
<u>1970</u>				
East Boston	32%	26%	26%	16%
City	10%	15%	28%	47%

8. Vacancy rates in housing

The 1970 Census indicated that 856 dwelling units were vacant in East Boston. Many of these vacancies, however, are not available for rent or for sale for various reasons - many are without adequate plumbing facilities or have other deficiencies making them virtually unrentable without significant rehabilitation. There were approximately 570 vacant units with all plumbing facilities available for rent in 1970 (4% of all units). The largest number of vacancies occurred in Jeffries Point and in the Maverick Square area, while Orient Heights and Day Square had the least number of vacancies.

9. Rent Levels

In 1960, median rent levels in East Boston were \$66 a month, lower than the city-wide level of \$78 a month. In 1970, the median rent level for the City climbed to about \$100 a month while the rent levels in East Boston remained lower at about \$80 a month. Approximately 86% of the rental units in East Boston rent for less than \$100 per month. Rents in East Boston are highest in Orient Heights where the median rents approach \$100 per month and lowest in Jeffries Point where median rents are below \$60 monthly.

H. Industry and Employment

1. Types

According to the Greater Boston Industrial Directory, the largest employers in East Boston are the airport; the shipbuilding and repair industry; and the apparel industry. Excluding Logan Airport, the largest of these firms (see table, below) employ an estimated workers.

Summary of East Boston Industry

<u>Major Industries by # of Employees</u>	<u># of Employees</u>	<u>Address</u>
Logan International Airport	10,000	Airport
Bethlehem Steel Corp. - Ship bldg. & repairing	350	56 Marginal St.
Boston & Lockport Block Co. - Hardware (cutlery, hand tools)	150	100 Condor St.
Royal Curtain - Fairclough & Gold Inc. - Fabricated textile products, curtains and draperies	125	156 Porter St.
American Architectural Iron Co. Inc. - Metal work	75	101 Border St.
General Ship & Engine Works Inc. - ship bldg. and repairing	150	336 Border St.
Gum Products, Inc. - Food (chewing gum)	140	150 Orleans St.
Kelox Industries - machinery & parts.	60	161 Prescott St.
New England Casket Co. Inc. - morticians goods, caskets.	70	1141 Bennington St.
Standard Box Springs Co., - furniture, mattresses and bedsprings	48	215 Bremen St.
Hodge Boiler Works; Boilers, steel pressure tanks; quick opening pressure doors.	100	87-111 Sumner St.

2. EDIC Survey - 1970

In 1970, the City's Economic Development and Industrial Commission surveyed 16, or about 55% of East Boston's largest industries (those employing 20 or more full-time workers)

The survey found that the annual average wage for the firms surveyed was \$6535. Six of the sixteen firms are considering moving out of the City of Boston. These six firms employ 788 workers or, 36% of the work force.

I. Commercial

East Boston, like most urban communities, has a hierarchy of commercial areas (see map). The largest of these is Central Square. Other smaller areas, primarily neighborhood convenience centers, are located at Maverick Square; Sumner-Cottage Streets in Jeffries Point; Bennington-Putnam Streets (Eagle Hill - Paris Street areas); Day Square; and Bennington - Saratoga Streets at Orient Heights.

The commercial areas are generally located at the intersections of major streets and are primarily oriented toward serving pedestrians from nearby residential sections.

J. Community Facilities and Other Institutional Uses

East Boston is served by a number of public and private schools, recreation facilities, a health center, libraries, fire stations, a police station, and other public and private institutional uses.

1. Schools

East Boston is divided into 5 public school districts (see table below). Public schools in East Boston are quite old. Seven of the 14 schools were built before 1920, including one built in 1870. Enrollments have not fluctuated greatly in the last three years and overall, according to the recent capacity figures, most schools are below recommended capacities (see table below).

East Boston: Public School Capacity

<u>School</u>	<u>Capacity</u>	<u>1971 Enrollment</u>
<u>Elementary Schools</u>		
<u>Theodore Lyman district</u>	<u>1,040</u>	<u>801</u> 740
T. Lyman (1870)	350	224
J. Otis (1905)	440	329
D. Alighieri (1924)	250	177
<u>D. McKay S. Adams District</u>	<u>1,415</u>	<u>798</u> 720
D. McKay (1926)	990	496
S. Adams (1910)	425	284
<u>Sheridan - Kennedy District</u>	<u>695</u>	<u>776</u> 752
P. J. Kennedy (1933)	380	419
P. H. Sheridan (1914)	315	333
<u>Chapman School District</u>	<u>840</u>	<u>637</u> 584
Chapman (1901)	490	261
H. R. O'Donnell (1932)	350	323
<u>Chevens District</u>	<u>1,120</u>	<u>1,272</u> 1324
M. Bradley (1958)	370	420
J. Chevens (1909)	350	442
C. Guild (1921), 150	400	462
TOTAL ELEMENTARY	5,110	4,284 4100
<u>Secondary Schools</u>		
Joseph H. Barnes Jr. High (1901)	1,000	714 648
East Boston High (1926)	1,300	1,237 1283
TOTAL SECONDARY	2,300	1,951 1731
GRAND TOTAL	7,410	6,235 5111

East Boston: Public School Enrollment by Districts

<u>Elementary Districts</u>	<u>Capacity (1)</u>	<u>Enrollment</u>		<u>1971</u>	
		<u>1969</u>	<u>1970</u>		
Chapman	840	618	638	637	534
John Chevenson	1,120	1,200	1,254	1,272	1324
D. McKay - S. Adams	1,415	844	794	798	712
Sheridan - Kennedy	695	775	753	776	752
Theodore Lyman	<u>1,040</u>	<u>816</u>	<u>787</u>	<u>801</u>	741
Total Elementary	5,110	4,253	4,226	4,284	4112
<u>Secondary Schools</u>					
Joseph H. Barnes Junior High	1,000 (1)	576	703	714	641
East Boston High	<u>1,300 (2)</u>	<u>1,214</u>	<u>1,244</u>	<u>1,237</u>	1212
Total Secondary	2,300	<u>6,143</u>	<u>6,173</u>	<u>6,235</u>	1713
GRAND TOTAL	7,410	6143	6173	6235	6111

*Source: The School Department of the City of Boston, Department of Statistics, Reports of the Superintendent to the Boston School Committee, 1969, 1970, 1971, 1972

(1) Source: Cyril G. Sargent, Boston Schools - 1962 May 1962.

(2) Source: Public Facilities Department, City of Boston and Educational Planning Associates, Inc., A Survey of the High Schools of Boston, July 1970.

Other Public Facilities

EAST BOSTON

<u>Building</u>	<u>Year Built</u>
Paris St. Gym Paris St.	early 1900's
East Boston Library 276 Meridian Street	1914
Orient Heights Branch (Library) 18 Barnes Ave.	1929
Fire Engine Co. 5, Squad 11 360 Saratoga Street	1901
Fire Engine Co. 40 260 Sumner Street	1924
Fire Engine Co. 9 60 Paris Street	1873
Fire Engine Co. 56, Lad. 21 1 Ashley Street	1949
E. Boston Courthouse 37 Meridian Street	
Public Welfare Bldg. 154 Maverick Street	
Office Bldg. 320 E. Eagle Street	before 1900
East Boston Health Unit (George Robert White Fund) 15 Porter Street	about 1930
East Boston Little City Hall	1968
Paris Street Pool	1972

K. Existing Land Use

The table below indicates the acreage occupied by various uses in East Boston and in the City of Boston. The amount of land used in East Boston for transportation is of particular note, primarily due to Logan Airport. Since this land use data was prepared in 1963, the amount of land dedicated to transportation, primarily airport use, has increased due to recent actions by the Massachusetts Port Authority. For example, a recent estimate of the size of Logan Airport alone is 2000 acres (Air Transportation for Boston, 1970-1990, BRA - ABT Associates). Also of note is the amount of land occupied by recreational and cultural uses.

The map below is a generalized land use map of East Boston indicating the general pattern of development.

Logan Airport occupied virtually half of the land mass in East Boston while the other half is used for other uses. The major commercial areas are generally at the intersections of major streets with institutional, recreational, and residential uses dispersed throughout. Major vacant areas are concentrated along McLellan Highway and the waterfront.

<u>Category</u>	<u>E.B. Acres</u>	<u>%</u>	<u>Boston Acres</u>	<u>%</u>
Residential	360	10%	9400	29%
Commercial	120	3%	2230	7%
Transportation	1640	44%	8550	26%
Institutional	100	2%	1600	5%
Cultural and Recreational	250	7%	5000	15%
Vacant Buildings	7	.2%	190	.6%
Vacant Land	1143	31%	4200	13%
Industrial	80	2%	1500	5%
	<u>3700</u>	<u>100%</u>	<u>32670</u>	<u>100%</u>

L. East Boston: Public Open Space - Listing by Type

<u>Name</u>	<u>Location</u>	<u>Acres</u>
<u>Parks and Reservations</u>		
Orient Heights Beach Area (MDC)	Barnes Avenue	46.5
Michael J. Brophy Park	Summer and Lamson Sts.	1.98
<u>Playfields</u>		
East Boston Memorial Stadium	Porter Street	17.67
John H. L. Noyes Playground	Saratoga Street	8.31
<u>Playgrounds and Tot Lots</u>		
American Legion Playground	E. Eagle Street	3.38
Pans Street Playground	Pans Street	1.27
Domenic Savio Baseball Field		
and Little League Field (MPA)	Horace Street	4.5
White Fund Play Area (MTA)	London & Decatur Streets	.53
Arthur E. McLeon Playground	adjacent to 691 Saratoga St.	.43
Neptune Road Play lot (MPA)	Neptune Road	.31
Jeffries Street Play lot	Summer Street	.49
<u>Malls and Squares</u>		
Prescott Square	East Eagle, Trenton, & Prescott Street	.28
Putnam Square	White, Trenton, and Putnam Sts.	.27
Central Square	Central Square	.93
Maverick Square	Maverick Square	.1
<u>School Playgrounds</u>		
Lyman		
Gove-Paris Streets		.38
Otis		
Paris-Marion Streets		.39
Alighieri		
Gove-Chelsea Streets		.37
McKay		
Cottage-Gove Streets		2.60
Adams		
Webster-Brigham Streets		.64
Kennedy		
Bennington-Prescott Streets		.32
Sheridan		
Prescott-Trenton Streets		.47
Chapman		
Eutaw Street		.42
O'Donnell		
Trenton Street		.41

Bradley	
Beachview-Faywood Streets	1.06
Chevenis	
Pope-Moore Streets	.80
Guild	
Leyden-Ashley Streets	.31
Barnes M. High	
Saratoga-Marion Streets	.29
East Boston High	
White-Brooks Streets	3.90

Source: BRA, East Boston Recreation Study
Part I Inventory of Existing Facilities and Programs

F. Open Space

In 1971, the Boston Redevelopment Authority completed a study of public open space in East Boston.

The report contained an inventory of existing facilities, conditions, proposed improvement programs, and made recommendations.

East Boston: Public Open Space Summary

<u>Type</u>	<u>City of Boston</u>	<u>MDC (1)</u>	<u>MPA (2)</u>	<u>MTA (3)</u>	<u>Total (acreage)</u>
Parks & Reservations	1.98	46.5	---	---	48.48
Playfields	25.98	---	---	---	25.98
Playgrounds and Tot					
lots	5.12	---	4.36	.53	10.01
School Playgrounds	14.00	---	---	---	14.0
Malls and Squares	<u>1.49</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>1.49</u>
Total	48.57	46.5	4.36	.53	99.96

(1) Metropolitan District Commission

(2) Massachusetts Port Authority

(3) Massachusetts Turnpike Authority

M. Utilities

1. Sewage and Storm Drainage

Virtually all of East Boston is served by a system of combined sewers; separate storm drains exist--in isolated areas only. Originally, the combined systems discharged all flow directly in Boston Harbor and Chelsea Creek. Since 1894-1895, the low flows have discharged to MDC intercepting sewers, which discharge to the MDC pumping station at Addison Street. Overflows or storm flows from the local systems discharge through overflow conduits to Boston Harbor and Chelsea Creek. The flow from the Addison Street pumping station is discharged through the North Metropolitan trunk sewer to Deer Island where it is discharged to the harbor.

East Boston Low Level Sewer System

The East Boston Low Level Sewer system, including a principal branch, the Moore Street Sewer, serves an area of about 250 acres which includes the portion of East Boston generally northeast of Curtis and Harmony Streets, exclusive of an area at the summit of Orient Heights and the area along Saratoga Street east of Barnes Avenue which are served by separate sanitary sewers and connected independently to the MDC North Metropolitan Trunk Sewer. The area is served on the combined sewer plan, although there are some separate drains and sanitary sewers.

The Low Level Sewer extends easterly from a connection to the MDC sewer upstream of the MDC Addison Street Pumping Station through marshland to Boardman Street near Orient Heights, thence southeasterly and easterly to east of Orient Heights. The Moore Street

Sewer extends southeasterly in Trident Street, southwesterly along Orient Heights Beach and Coleridge Street to Moore Street, thence northeasterly to McClellan Highway.

The principal outlet for mixed sewage and storm water from the low Level Sewer system is at the south end of Moore Street.

The tributary area served by the East Boston Low Level Sewer lies in the Orient Heights Area.

The Metropolitan Sewerage System in East Boston - Branch Sewer System

The East Boston Branch Sewer System serves the portion of East Boston southwest of the Addison Street Pumping Station. The area of about 620 acres is sewered on the combined plan. The principal branch sewer extends generally southwest on Chelsea Street and Bremen Street from near the pumping station to Porter Street, and southwesterly in Bremen Street and Orleans Street and easterly in Marginal Street to Ruth Street. At Porter Street it is joined by a branch northwest to Central Square from which branches extend north in Border Street to Condor Street, and south in Border Street and New Street to Summer Street. At Maverick Street the sewer in Orleans Street is joined by a branch extending easterly to Jeffries Street. Overflows from the combined sewers of this system outlet to Chelsea River, and to the Inner Harbor.

North Metropolitan Trunk Sewer

The North Metropolitan Trunk Sewer east of the Addison Street Pumping Station extends easterly through East Boston south of Orient Heights to the siphon at Belle Isle Inlet and thence across Winthrop to Deer Island. The sewer between the pumping station and Belle Isle Inlet receives inflows from the portion of East Boston east of Borden Street. These areas are sewered on the separate plan.

2. Water

East Boston is somewhat unique in that its water systems are independent of those of the rest of the City. The MDC's Northern Low Service provides the entire domestic and commercial supply, and fire protection.

N. Transportation

1. Major routes

In East Boston, principal traffic flows are through the Sumner and Callahan Tunnels; along Route C-1 (William McClennan Highway); the Andrew P. McArdle Bridge - Meridian Street; Bennington Street; the portion of Saratoga Street east of Bennington Street and the access roads to and within Logan Airport.

Local traffic flow is primarily on Sumner, Bennington, Porter Streets, in Central Square; on Chelsea, Meridian, Condor, Boardman Streets, Walderman Avenue, Walley, Saratoga, Frankfort and Maverick Streets.

Public transportation is provided by the Massachusetts Bay Transportation Authority, which provides bus and the "Blue" line rapid transit service.

2. Logan International Airport

Logan Airport is in the eastern portion of East Boston. The Airport was created by filling operations which have taken place since the 1920's on the northern tidal flats and shallows of Boston Harbor. The Airport is one of the nation's busiest airports (fifteenth in 1968, according to the number of aircraft operations), one in which access from downtown Boston by car or rail is good to excellent depending on traffic conditions, and is the only major air terminal serving the Boston area.

3. Existing Traffic Conditions

Traffic Volume Data

Traffic counts were taken in East Boston on July 16-28, 1971. These included two ATR's and 32 one-hour manual counts as shown on map below. The data collected, supplemented by 19 existing counts taken by the State DPW, Massachusetts Port Authority and the Massachusetts Turnpike Authority, were used to prepare a traffic flows map of East Boston as illustrated.

The principal traffic flows are on the following routes:

<u>Street</u>	<u>ADT</u>
Harbor Tunnels	66,000
East Boston Expressway	59,000
McCellan Highway	48,000
Airport Road	8,000 - 26,000
Bennington Street	6,000 - 25,000
Saratoga Street	3,000 - 25,000
Chelsea Street	8,000 - 18,000
Meridian Street	11,000 - 14,000
Andrew McArdle Bridge	12,000
Maverick Street	9,000
Porter Street	6,000
Airport Service Road	4,000
Condor Street	4,000
Waldemar Avenue	2,000 - 4,000

Accident Data

Accident data for 1970 was obtained from the Boston Police Department, the Registry of Motor Vehicles, the Metropolitan District Commission for MDC roads and the Massachusetts DPW for State numbered routes. For 1970 the Boston Police Department recorded 143 intersectional accidents and the Registry of Motor

Vehicles recorded (08 intersectional accidents. This indicated a relatively high level of reporting by the Registry of Motor Vehicles. All intersections with three or more reported accidents in the study period were plotted onto the Accident Spot Map, using the highest figure for each location from each source.

The distribution by accident grouping is as follows:

<u>Accident Group</u>	<u>No. of Intersections</u>	<u>No of Accidents</u>
15 and over	7	173
10-14	3	38
6-9	17	129
3-5	34	127
1-2	76	99

The intersections with 15 or more accidents in 1970 are as follows:

<u>Intersection</u>	<u>1970 Accidents</u>
Bennington Street/Bremen Street	40
Central Square	37
Bennington Street/Saratoga Street	30
Bennington Street/Chelsea Street/Prescott St.	18
Chelsea Street/Maverick Street/Meridian Street	18
Geneva Street/Maverick Street	15
McClellan Highway/Waldermar Avenue	15

The intersections of all major streets have accident levels far above what might be expected with proper traffic control devices. Saratoga Street, Meridian Street, Chelsea Street and Bennington Street in particular experience a succession of dangerous intersections that could be improved considerably by both revised circulation patterns and adequate traffic control devices within

many of the adjacent street networks. With the expected increase in population and the more rapid increase in auto ownership levels, continued worsening of the traffic problem can be expected.

Traffic Control Data

The location of all existing signals and STOP signs was obtained from the Boston Traffic and Parking Department and the Massachusetts Department of Public Works. There are currently eight traffic signals, three pedestrian signals, and nine flashing beacons operating in East Boston. In addition, there are approximately 60 isolated STOP signs placed at some of the key intersections throughout East Boston. The existing number of traffic signals is not adequate and most of these existing signal installations are substandard and need improvement. Most of the existing pedestrian signals do not have pedestrian indications. In light of the severity of the traffic problem, the use of more sophisticated traffic control equipment should be considered for installation. The location of STOP signs should be reviewed and new signs should be placed where warranted. Street lighting is inadequate throughout most of East Boston and should be upgraded with mercury vapor luminaires, conforming to current standards of spacing and intensity.

4. Noise exposure forecasts - Logan Airport

The best currently available method of generally describing the annoyance associated with current noise exposures in the vicinity of airports and of predicting future annoyance in the Noise Exposure Forecast (NEF), developed by the Federal Aviation Administration (FAA). The FAA is developing NEF contour for airports throughout the United States. The NEF contours attempt to use a projection of airport operations to estimate the future impact of aircraft noise on communities.

Bolt, Beranek, and Newman, an acoustical consulting firm,

have developed land use interpretations for various levels of noise exposure. The map below details NEF contours for East Boston. This information will be analyzed in the next section of the General Plan - Analysis.

5. Seaport Activities

At present, seaport activities in East Boston are varied. At Chelsea Creek, north of East Boston there are storage areas for fuel oil; on the western waterfront are Bromfield Marine, Boston Tow Boat, General Ship and Engine Works, and Boston Fuel Transportation, which are primarily repair and shipping facilities. On the southern waterfront are Bethlehem Steel and the Massachusetts Port Authority (MPA) piers. The MPA piers are vacant, with the exception of Pier One. Pier One is the newest pier in the Port of Boston (1954), and is operated by the Penn Central Railroad under a lease agreement.

0. Zoning

The map below indicates the current zoning in effect in East Boston. The zoning map was originally prepared in 1924, but generally followed the pattern of land use that had already developed by that time. Although the code was changed in 1965, the essential pattern of the previous code was not substantially changed. Thus, new type of requirements for land by industrial and commercial uses, now primarily oriented to vehicular transportation and horizontal expansion, has forced vacancies and incompatible uses in some areas.

East Boston
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1972

East Boston General Plan

